

What is claimed is:

1. A magnetic recording medium employed for magnetically recording signals with a track width equal to or less than $2.0 \mu\text{m}$ and reproducing the magnetically recorded signals, wherein
said magnetic recording medium comprises a magnetic layer comprising a hexagonal ferrite ferromagnetic powder and a binder on a nonmagnetic support,
said magnetic layer has a thickness equal to or less than $0.2 \mu\text{m}$,
and
said hexagonal ferrite ferromagnetic powder has an average plate diameter being $1/30$ or less of the magnetically recorded track width as well as $1/2$ or less of the thickness of the magnetic layer.
2. A magnetic recording medium employed for magnetically recording signals with a track width equal to or less than $2.0 \mu\text{m}$ and reproducing the magnetically recorded signals, wherein
said magnetic recording medium comprises a nonmagnetic layer comprising a nonmagnetic powder and a binder and a magnetic layer comprising a hexagonal ferrite ferromagnetic powder and a binder in this order on a nonmagnetic support,
said magnetic layer has a thickness equal to or less than $0.2 \mu\text{m}$,
and
said hexagonal ferrite ferromagnetic powder has an average plate diameter being $1/30$ or less of the magnetically recorded track width as well as $1/2$ or less of the thickness of the magnetic layer.
3. The magnetic recording medium according to claim 1, wherein a bit

length of the magnetically recorded signal ranges from 0.04 to 0.2 μ m.

4. The magnetic recording medium according to claim 2, wherein a bit length of the magnetically recorded signal ranges from 0.04 to 0.2 μ m.
5. The magnetic recording medium according to claim 1, wherein the magnetic layer has a coercive force ranging from 143 to 398 kA/m (1800 to 5000 Oe).
6. The magnetic recording medium according to claim 2, wherein the magnetic layer has a coercive force ranging from 143 to 398 kA/m (1800 to 5000 Oe).
7. The magnetic recording medium according to claim 1, wherein the magnetic layer has a squareness (SQ) equal to or higher than 0.6.
8. The magnetic recording medium according to claim 2, wherein the magnetic layer has a squareness (SQ) equal to or higher than 0.6.
9. The magnetic recording medium according to claim 1 for use in a magnetic recording and reproducing system wherein the magnetically recorded signal is reproduced with a magnetoresistive magnetic head (MR head).
10. The magnetic recording medium according to claim 2 for use in a magnetic recording and reproducing system wherein the magnetically recorded signal is reproduced with a magnetoresistive magnetic head (MR

head).